

TYPHOON®

400 SERIES
GLOBE TYPE
CONTROL VALVE

Casting





We Care Every Drop of Water...

That is why our company, which has been developing products in the field of water systems for over 20 years, offers increasingly efficient solutions every day. With our expertise and experience, we continue to develop innovative technologies for the proper control and sustainable use of water.

OUR PRODUCTION CAPACITY IS INCREASING!

OUR GOALS ARE BIGGER!

We have been wherever there is water since 2004.

Founded in Izmir by Tayfun Yazaroğlu, TAYFUR WATER SYSTEMS set out with the belief that water is the source of life. Beginning with the production of hydraulic control valves, this journey has now transformed into a strong and reliable brand offering innovative solutions across a wide range of areas, including irrigation, drinking water, firefighting and industrial systems.

In every project, while determining the direction of water, we are also shaping the sustainable infrastructure of the future. From production to project design, from installation to technical support, we work without compromising on high quality standards, with our state-of-the-art facilities and expert team. We aim to offer our customers not just products, but also trust, continuity and technical excellence.

TYPHOON branded products are developed entirely with our own production capabilities and local engineering expertise. These products stand out not only for their durability, but also for our philosophy of preserving the value of every drop. Thanks to our production processes that comply with international standards and our customer satisfaction-focused approach, we are proud to be recognised as a reliable business partner both domestically and globally.

Today, TAYFUR WATER SYSTEMS, a brand with roots in Izmir, continues on its path with the vision of being a symbol of quality, innovation, and trust wherever water is present.





TYPHOON Piston Globe Control Valves were developed to deliver both reliability and performance in modern water and flow management. The dual-chamber diaphragm-actuated valve design provides the valve with superior response speed and precise control capabilities, while the ability to easily convert to single-chamber operation mode based on system requirements provides user flexibility. The V-Port valve option, available for applications requiring maximum control in low-flow lines, elevates the valve to the next level in its class.

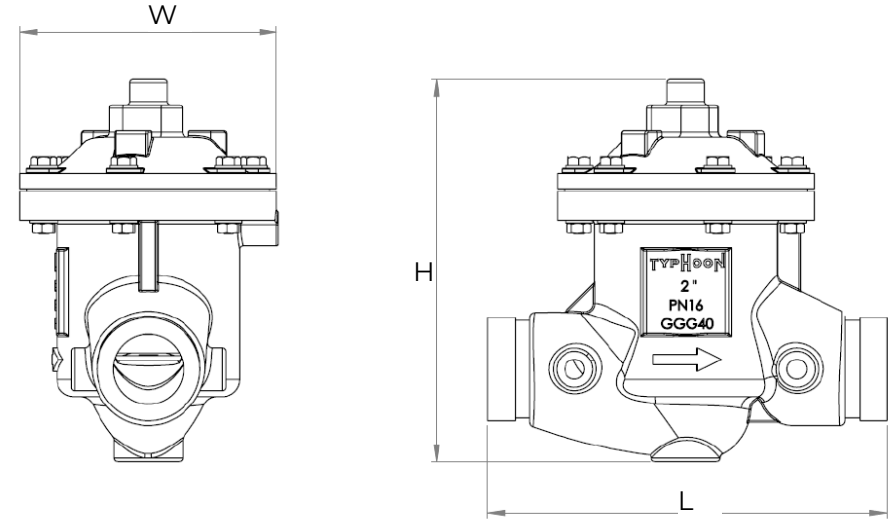
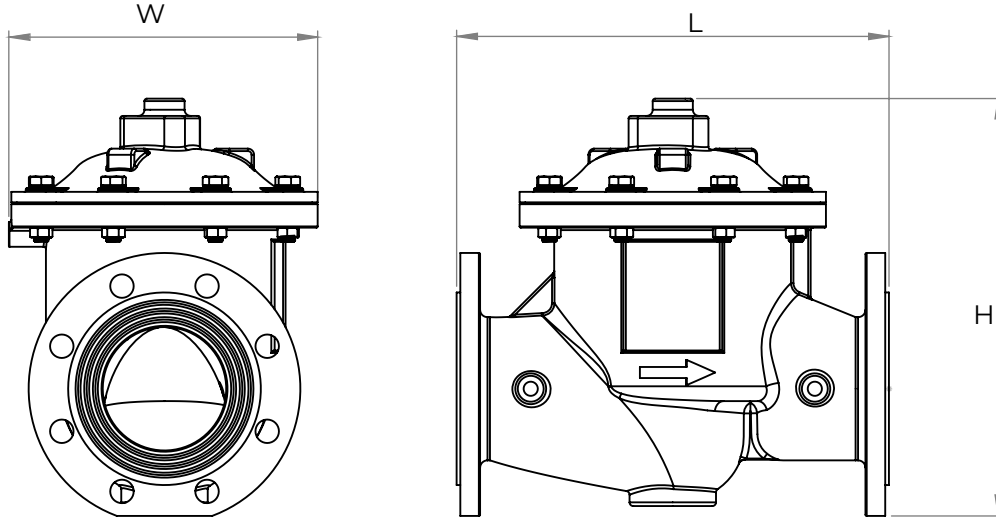
The valve stem, rigidly mounted in the body, reduces vibration and ensures a smooth, completely leak-free opening and closing motion. This robust mechanical structure makes TYPHOON valves both durable and long-lasting.

The TYPHOON series can be adapted to a wide range of applications by adding various control components to the basic body. They provide uninterrupted and precise flow control in a wide range of applications, from drinking water lines to agricultural irrigation, from fire systems to filtration and industrial processes.

With their high performance, robust construction and flexible configuration options, TYPHOON Piston Globe Type Control Valves offer a long-term solution for efficient, reliable and trouble-free operation of systems.

Technical Specifications

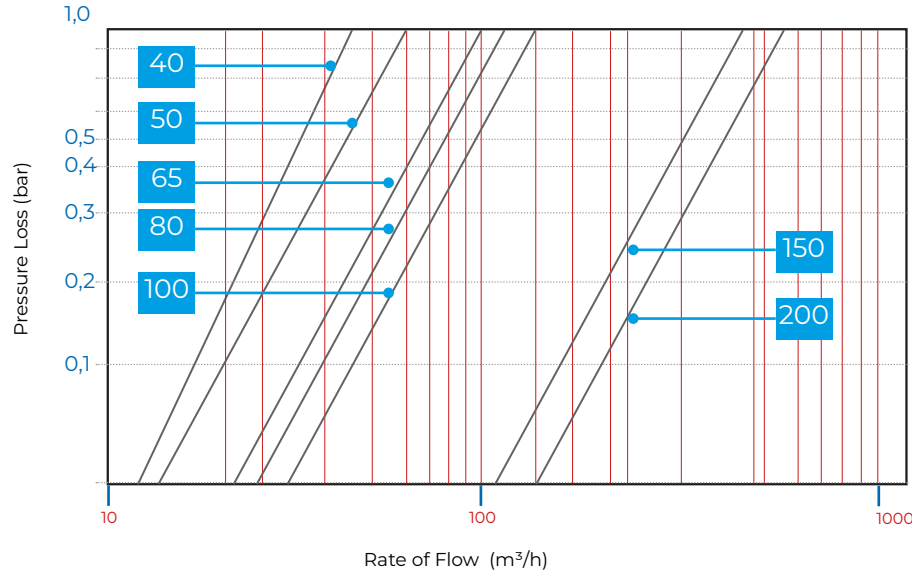
Working Pressure	Standard	0.7-16 bar (10-240 psi)
	High Pressure	1-25 bar (14.5-360 psi)
Temperature	Min. Working Pressure	-10 °C (14 °F) DIN 2401/2
	Max. Working Pressure	-80 °C (176 °F) DIN 2401/2
Connection	Flanged	DIN 2501, ISO 7005-2
	Victaulic	Victaulic OGS No.25.01
Coating	Standard	Epoxy
	Optional	Polyester
Hydraulic Connections	Standard	PA-12 Polyamide
	Optional	Copper DIN 1057 / Chrome DIN 2391-1
Actuator Type	Standard	Dual Control Chamber Actuator



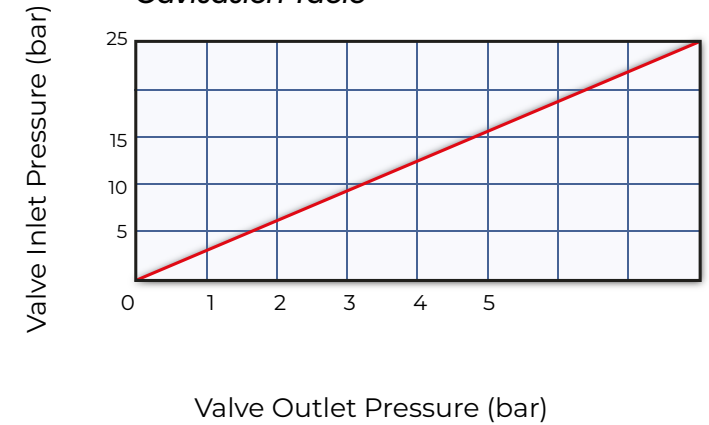
DN		L		H		W		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	9,06	230	9,65	245	6,50	165	27,53	12,5
2½	65	9,84	250	10,04	255	7,28	185	31,94	14,5
3	80	12,20	310	12,52	318	8,66	220	59,47	27,0
4	100	13,78	350	13,31	338	9,76	248	78,19	35,5
6	150	18,90	480	16,77	426	12,60	320	145,36	66,0
8	200	23,62	600	19,84	504	16,14	410	242,27	110,0

DN		L		H		W		Weight	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs	Kg
2	50	9,21	234	8,74	222	5,91	150	19,16	8,70
2½	65	10,00	254	9,09	231	5,91	150	21,47	9,75
3	80	12,05	306	11,97	304	8,66	220	48,45	22,00
4	100	13,62	346	12,80	325	9,76	248	65,19	29,60
6	150	18,74	476	16,38	416	12,60	320	124,88	56,70
8	200	23,86	606	19,76	502	16,14	410	218,92	99,40

Pressure Loss Table



Cavitation Table



Hydraulic Performance

	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Valve Diameter	2	50	2½	65	3	80	4	100	6	150	8	200
Kv m³/h @ 1bar	60		95		125		190		530		890	
Cv gmp @ 1psi	69,300		109,725		144,375		219,450		612,150		1027,950	

$$Kv(Cv) = Q \cdot \sqrt{G/\Delta P}$$

Kv : Valve Flow Coefficient (Flow rate at 1 Bar Pressure Loss m³/h @ 1 Bar)
 Cv : Valve Flow Coefficient (Flow Rate at 1 Psi Pressure Loss Gpm @ 1 Psi)
 Q : Flow (m³/h, gpm)

Cv = 1,155Kv
 ΔP : Pressure Loss(bar, psi)
 G : Specific Gravity of Water (Water=1.0)

Hydraulic Control Valve

400 Series - Globe Type Control Valve



#	Product Name	Material
1	Body	GGG40
2	Nut	8.8 Coated Steel
3	Body Bushing O-Ring	NBR
4	Body Bushing	Stainless Steel
5	Bolt	Stainless Steel
6	Nut	Stainless Steel
7	Disc	Brass
8	Sealing Rubber	EPDM
9	Cup	Stainless Steel
10	Spring	M6x20 A2
11	Shaft	M6 A2
12	Shaft O-Ring	NBR
13	Bottom Cover Bushing	Brass
14	Bottom Cover	1040 Steel
15	Diaphragm	Natural Rubber
16	Diaphragm Support	1040 Steel
17	Top Cover	M10 A2
18	Washer	8.8 Coated Steel
19	Bolt	8.8 Coated Steel

Working Principles

These are double-chamber, diaphragm-actuated, flap-closing automatic control valves used to perform hydraulic operations using line pressure without the need for power sources in the mains.

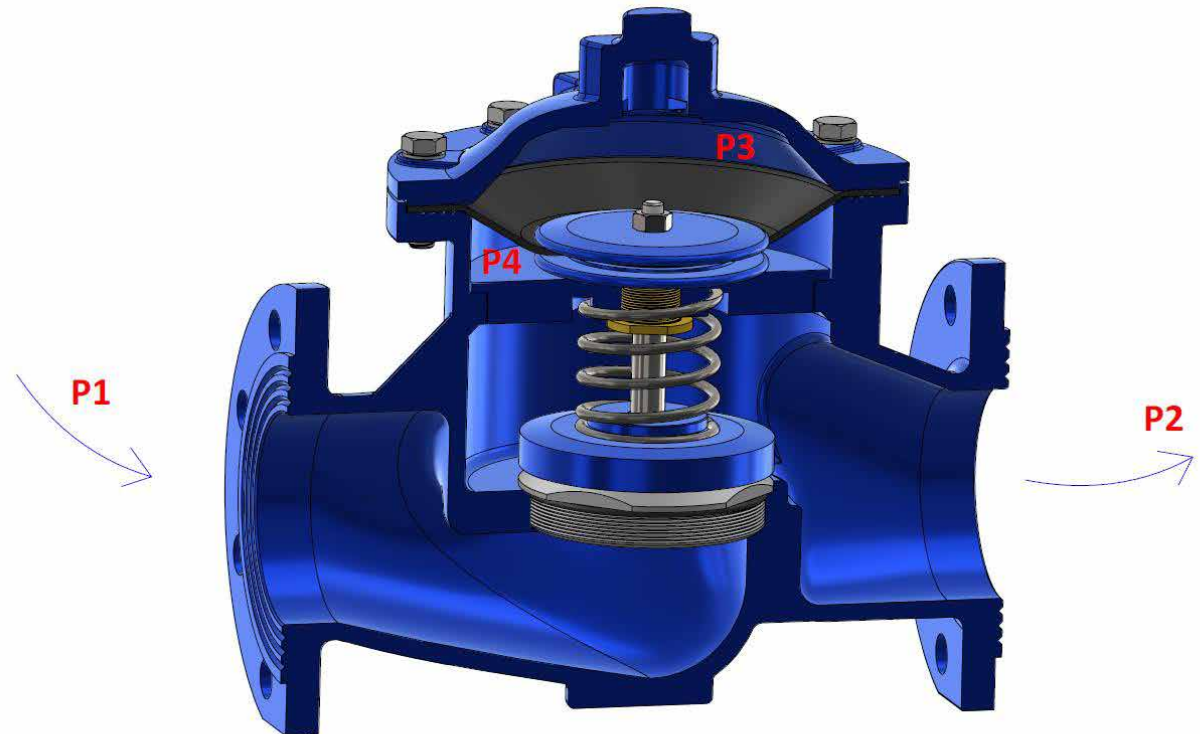
P1: Inlet Pressure

P2: Outlet Pressure

P3: Actuator Pressure

P_{spring} : Spring Force

A: Flap Effective Area

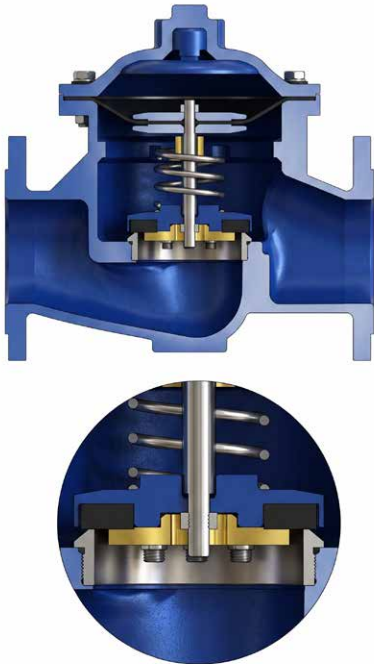


Valve Closing Mode

When the pilots on the main control valve deliver the inlet pressure (P1) to the diaphragm, the water creates hydraulic force. This force causes the valve disc to seat against the body seat, ensuring the valve closes completely without leakage.

If we examine the forces involved in closing the valve: $P3 \times 3A + Pyay > P1 \times A$

is obtained. When there is no external influence on the area indicated by the P3 pressure, the P3 pressure equals the maximum P1 pressure. The $P3 \times 3A$ force overcomes the $P1 \times A$ force together with the spring force, and the valve closes completely without leakage.



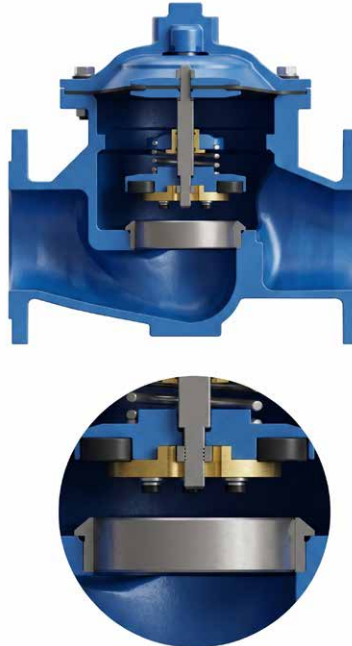
Valve Opening Mode

The inlet pressure of the main control valve overcomes the $Pyay$ force, which assists in the closing operation, and the force created by the P3 pressure on the diaphragm, thereby opening the valve.

If we examine the forces involved in opening the valve:

$$P1 \times A > Pyay + P3 \times 3A$$

is obtained. Since the area represented by the P3 pressure is discharged, the differential pressure becomes 0. Thus, the $P1 \times A$ force overcomes the spring force, enabling the valve to open. The spring force determines the minimum opening pressure required to open the valve.



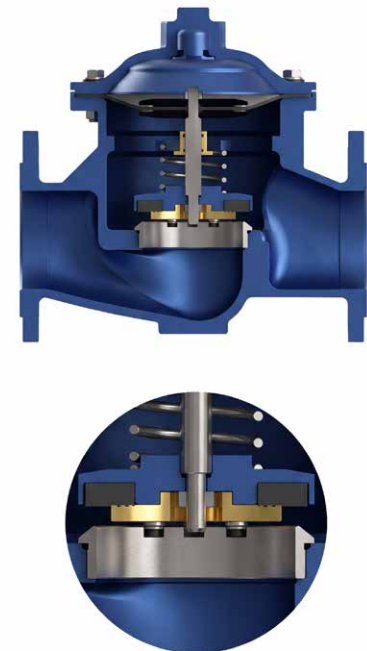
Modulation Mode

The pilots located on the main control valve continuously monitor the fluid pressure, enabling it to operate in modulation mode.

If we examine the forces involved in the valve's operation in modulation mode:

$$P1 \times A + P2 \times 3A = P3 \times 3A + Pyay + P2 \times A$$

is obtained. The pilot valve, which enables the valve to operate in modulation mode, regulates the pressures P2 and P3 to achieve force equilibrium. Thus, the valve operates in modulation mode.





Pressure Reducing Control Valve



*Pressure Sustaining / Relief
Control Valve*



*Pressure Reducing + Solenoid
Control Valve*



Float Level Control Valve



Hydraulic Checkvalve



Manual Hydraulic Control Valve



Solenoid Hydraulic Control Valve

Certificates



CERTIFICATE

CERTIFICATE OF CONFORMITY

Manufacturer / Üretici
TAYFUR SU SİSTEMLERİ MAKİNE MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ

Address / Adres
KEMALPAŞA OSB MAHALLESİ KUZYEY CAD. NO:13 KEMALPAŞA / İZMİR / TÜRKİYE

Product Description / Ürün Tanımı
FILTER BACKWASH CONTROL DEVICES / FİLTRE TERS YIKAMA KONTROL CİHAZLARI

Product Types / Ürün Tipleri
AC Tip - 1-2-3 Dahilli DP
DC Tip - 1-2-3 Dahilli DP
AC Tip - 2-4-6 DP Harç
DC Tip - 2-4-6 DP Harç
AC Tip - 2/10 DP Harç
DC Tip - 2/10 DP Harç (2 Kablolu)
Basıncı Park Çıhan (DP)

Product Brand / Ürün Markası
FLUSHCON

Directives and Regulations / Direktif ve Yönetmelikler
2006/42/EC Machinery Safety Directive / 2006/42/AT Makine Emniyeti Direktifi
2014/35/EC Low Voltage Directive / 2014/35/AT Alçak Gerilim Yönetmeliği

Harmonized Standards / Harmonize Standartlar
EN ISO 120100:2010, EN 60204-1:2016

It has been accepted by the company that the applicable requirements of the 2006/42/EC Machinery Safety Directive have been fulfilled and its responsibility has been taken for the products defined above. The products defined above have been checked by internal production controls carried out by the organization. If there is a change in the product, this declaration will not be accepted and will lose its validity.

Yukarıda tanımlan verimlilik olan ürünlerin için Makine Emniyeti Direktifinin uygulanabilen gerekliliklerinin yerine getirdiği ve sorumluluğunun alınıyor olduğu firma tarafından kabul edilmiştir. Yukarıda tanımlan verimlilik olan ürünler, iç üretim kontrollerinin kuruluş tarafından yapıldığı kontrol edilmiştir. Üründe bir değişiklik olduğu takdirde bu beyan kabul edilmeyecek ve geçerliliğini yitirecektir.

Certificate First Issue Date : 16.02.2023
Certificate Validity Date : 07.02.2025
Certification Expiry Date : 16.02.2026

Authorised by




INTERNATIONAL DOCUMENTING SYSTEM DOO
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Doküman
o registraciji

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Product Description / Ürün Tanımı
HYDRAULIC CONTROL VALVES / HİDROLİK KONTROL VANALARI

Product Types / Ürün Tipleri
TYPHOON SERIES
MANUAL HYDRAULIC CONTROL VALVE / PRESSURE REDUCING CONTROL VALVE
PRESSURE REDUCING AND PRESSURE SUSTAINING CONTROL VALVE
SOLENOID CONTROL VALVE / QUICK RELIEF CONTROL VALVE / FLOAT LEVEL CONTROL VALVE
ELECTRIC FLOAT LEVEL CONTROL VALVE / DIFFERENTIAL FLOAT LEVEL CONTROL VALVE
PUMP CONTROL VALVE / DEEP WELL PUMP CONTROL VALVE / SURGE ANTICIPATING VALVE
HYDRAULIC CHECK VALVE / Y TYPE HYDRAULIC CONTROL VALVE
QUICK PRESSURE RELIEF CONTROL VALVE
BACKFLUSHING CONTROL VALVES; VICTAULIC 3x2 - VICTAULIC 4x3 - FLANGE 3x2 - FLANGE 4x3 - VICTAULIC & THREADED 2x2

Product Features / Ürün Özellikleri
Basıncı / Pressure: PN10-PN16 -PN25
Max Çalışma sıcaklığı / Max Operating Temperature: 60°C-80°C
Çaplar / Diameters : DN20(3/4") den DN300(12") e kadar
Üretim Standartları / Production Standards : TS EN 558-1 Esser Series 48 FTF-CTF
Vana Boyu / Valve Length : TS ISO 7005-2 , TS EN 558-1
Flanç Ölçüleri / Flange Dimensions: TS ISO 5208 – ISO 7005/2 – EN 1092/2 – BS 40504-BS 106-ANSI
Basıncı Testleri / Gvönde Test Basıncı / Pressure Tests : Body Test Pressure : 1.5 x PN
Sızdırmazlık Test Basıncı / Sealing Test Pressure: 1.1 x PN
Genel Tasarımlar / General Designs: TSEN 1074-1-2-5

Product Brand / Ürün Markası
TYPHOON

Directives and Regulations / Direktif ve Yönetmelikler
2014/68/EU Pressure Equipment Directive / 2014/68/EU Basıncı Ekipmanlar Direktifi

It has been accepted by the company that the applicable requirements of the 2014/68 / EU Pressure Equipment Directive have been fulfilled and its responsibility has been taken for the products defined above. The products defined above have been checked by internal production controls carried out by the organization. If there is a change in the product, this declaration will not be accepted and will lose its validity.

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Kuruluşumuz (the organization)

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MANUFACTURE AND SALES OF PLASTIC & CASTING HYDRAULIC CONTROL VALVES, CASTING & PLASTIC BACK-FLUSHING CONTROL VALVES, NON-FLAM DYNAMIC & PLASTIC AIR RELEASE VALVES, FOOT VALVES, SINGEL CHAMBER / DOUBLE FUNCTION AIR VALVES, STRAINER, SEWAGE - AIR RELEASE VALVE, FILTER BACK-FLUSHING CONTROL DEVICES AND BRASS QUICK COUPLING VALVES

EA 14, 18

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Sertifica No/Certificate No : 14.24.10163.20403.2

Redüktör Tarihli/No/Revision Date(s) : -

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Trade Fairs





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Caddesi Dış Kapı No:13
Kemalpaşa / İzmir

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TYPHOON

Her
Fabrika
Bir
Kaledir*

K. Atatürk



* Every factory is a fortress